Supplementary Data for manuscript titled:

Drug-induced permeabilization of parasite's digestive vacuole is a key trigger of programmed cell death in *Plasmodium falciparum*

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Table S1. List of dysregulated transcripts after treatment with 30μM chloroquine with at least 2 folds change as compared to vehicle-treated parasites. Tab "4 hr" represents dysregulated gene transcription 4 hrs post-CQ treatment; tab "8 hr" represents dysregulated gene transcription 8 hrs post-CQ treatment; tab "4 & 8 hr" shows dysregulated gene transcription at both 4 and 8 hours post-CQ treatment; tab "Cysteine Proteases" shows cysteine proteases that have been up-regulated at 4 and 8 hr time-points.

Figure S2. Real-time RT-PCR results of pre-procathepsin c and other representative genes normalized against actin (PFL2215w) as a means to validate the microarray data.

Figure S3. Confirmation of genetic knockout. (A) A genetic screen via Southern blot was designed such that a single cross-over event introduces an internal *AvrII* restriction site due to the insertion of the targeting vector. (B) Southern blot analysis revealed a shift of the target band from 8.3 kb in the wild-type (wt) parasite line to a 6.8 kb band in the PPC-knockout line (ΔPPC).

Video S4. Live cell imaging of 3D7 parasite stained with Fluo-4-AM and exposed to 3 μM of CQ. Confocal images were captured once every minute (beginning from 3 hrs 10 min and ending at 3hrs 30 min) and video is playing at 4 frames per second. (A) Dark field shows green fluorescence of Fluo-4-AM being redistributed from digestive vacuole to parasite cytoplasm. (B) Overlay of phase contrast and dark field

Table S5. List of primers utilized for real-time RT-PCR verification of the microarray data.